SAMSUNG

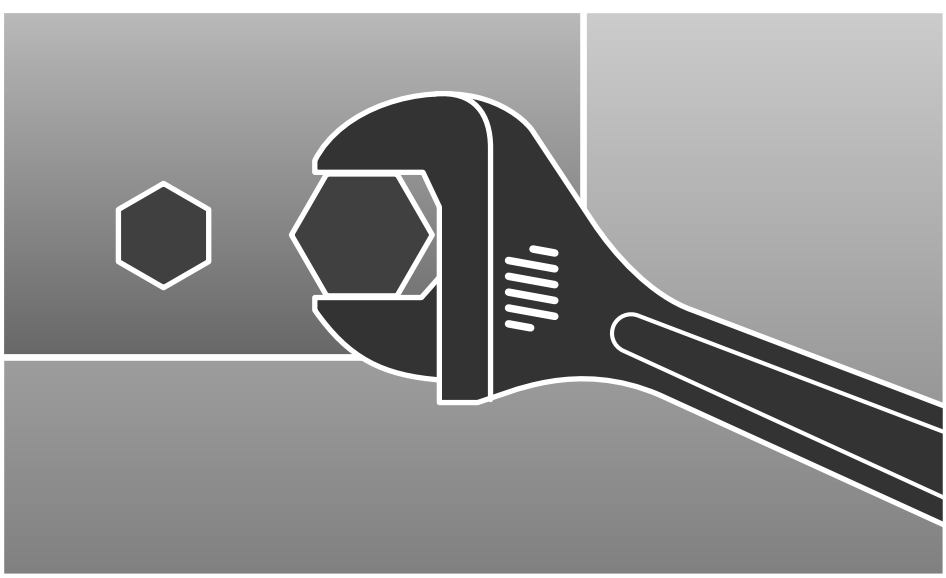
INSTALLATION MANUAL
MANUAL DE LA INSTALACIÓN
MANUEL D'INSTALLATION
MANUALE INSTALLAZIONE
MANUAL DE INSTALAÇÃO
INSTALLATIONSHANDBUCH
ΕΓΧΕΙΡΙΔΙΟ ΕΓΚΑΤΑΣΤΑΣΗΣ

Indoor unit

MH023FWEA
MH026FWEA
MH035FWEA
MH052FWEA

ENGLISH
ESPAÑOL
FRANÇAIS
ITALIANO
PORTUGUÊS
DEUTSCH
ΕΛΛΗΝΙΚΑ

Free Joint Multi Air Conditioner (Cool and Heat)
Acondicionador de aire libre del empalme multi (Refrigeración y Calefacción)
Climatiseur Free Joint Multi (Refroidissement et Chauffage)
Aria condizionata Free Joint Multi (Raffreddamento e Riscaldamento)
Free Joint Multi ar condicionado (Refrigeração e Aquecimento)
Free Joint Multi Klimaanlage (Kühlen und Wärmen)
Πολλαπλό Κλιματιστικό Μηχάνημα Ελεύθερης Ένωσης (Ψύξης - Θέρμανσης)



ⒺⓈⒻⒾⓅⒹⒼ DB98-24189A(1)

Safety Precautions

You should take the following safety precautions when using your air conditioner.

WARNING

- If you don't follow the safety precautions, you may get the risk of an electric shock, injury or death.
- The manufacturer or qualified service personnel must install this air conditioner.
- Unplug the electric power before repairing, installing or cleaning.

INSTALLING THE AIR CONDITIONER

- The unit should not be installed by the user. Ask the dealer or authorized company to install the units except room air conditioners for the U.S.A and Canada area.
- If the unit is installed improperly, water leakage, electric shock or fire may result.
- Mount with the lowest moving parts at least 2.5m above the floor or grade level. (If applicable)
- The manufacturer does not assume responsibility for accidents or injury caused by an incorrectly installed air conditioner. If you are unsure about installation, contact an installation specialist.
- When installing the built-in type air conditioner, keep all electrical cables such as the power cable and the connection cord in pipe, ducts, cable channels e.t.c to protect them against liquids, outside impacts and so on.

POWER SUPPLY AND CIRCUIT BREAKER

- If the power cord of this air conditioner is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The unit must be plugged into an independent circuit if applicable or connect the power cable to the auxiliary circuit breaker. An all pole disconnection from the power supply must be incorporated in the fixed wiring with a contact opening of >3mm.
- Do not use an extension cord with this product.
- If the unit is equipped with a power supply cord and a plug, the plug must be accessible after installation.
- The air conditioner must be installed in accordance with national wiring regulations and safety regulations wherever applicable.

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Deciding on Where to Install the Air Conditioner

When deciding on the location of the air conditioner with the owner, the following restrictions must be taken into account.

General

Do NOT install the air conditioner in a location where it will come into contact with the following elements:

- Combustible gases
- Saline air
- Machine oil
- Sulphide gas
- Special environmental conditions

If you must install the unit in such conditions, first consult your dealer.

Indoor Unit

- There must be no obstacles near the air inlet and outlet.
- Install the indoor unit on a surface that can support its weight.
- Choose a position that enables the piping and cables to be easily connected to the outdoor unit and the recommended length of 7.5 metres to be respected.
- Leave enough clearance beneath the indoor unit to enable the filters to be removed without hindrance.
- Maintain sufficient clearance around the indoor unit, as indicated in the diagram on the page opposite.
- Make sure that the water dripping from the drain hose runs away correctly and safely.

CAUTION

- ***You have just purchased a Free Joint Multi air conditioner and it has been installed by your installation specialist.***
- ***This device must be installed according to the national electrical rules.***
- ***Max input power & current is measured according to IEC standard and input power & current is measured according to ISO standard.***
- ***More than 2 indoor units should be installed when you use Free Joint Multi air conditioner.***

◆ **MH040FXEA2/MH052FXEA2**

❊ The split type, 1-way cassette, slim duct type indoor units can be installed together.

Indoor unit	Outdoor unit	Power supply Ø, V, Hz
✳✳ 023/026/035✳✳	MH040FXEA2 MH052FXEA2	1, 220-240, 50

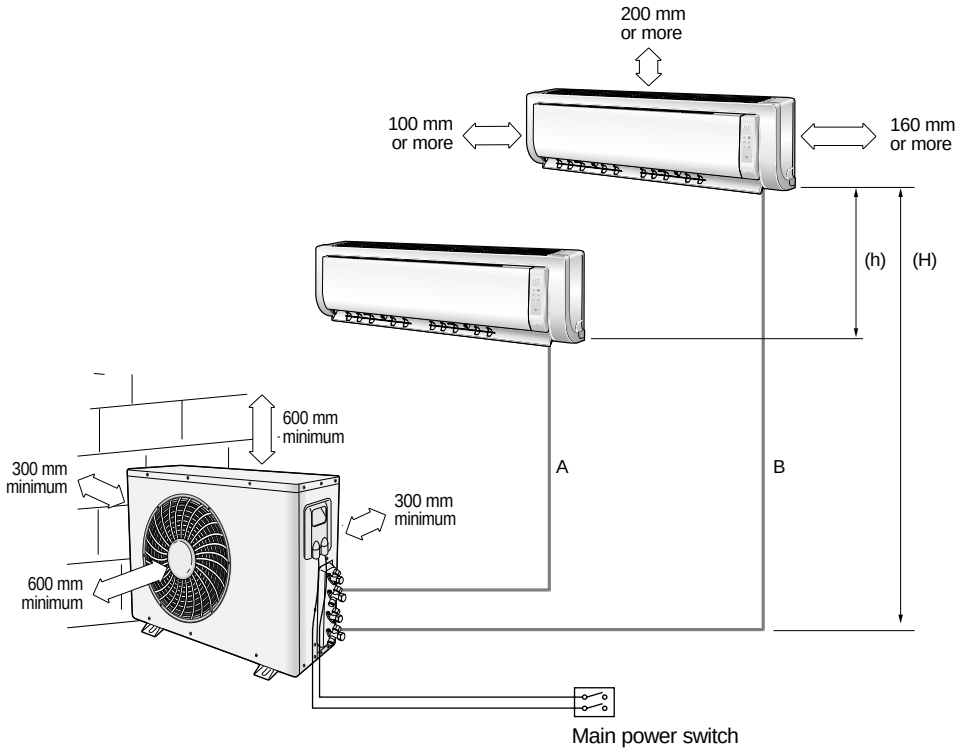
◗ **Piping outside diameter**

Unit	Outside diameter	
	Liquid	Gas
✳✳ 023/026/035✳✳	1/4″	3/8″

❊ MH052FWEA indoor unit cannot be connected to the MH040FXEA2 and MH052FXEA2 outdoor units.

❊ MH040FXEA2 outdoor unit cannot be connected to the following indoor unit combination.

✳✳026✳✳+✳✳035✳✳/✳✳035✳✳+✳✳035✳✳



◗ **Piping length and the height**

	1 Room max length	2 Room total max length	Max height between indoor unit & outdoor unit	Max height between indoor units
Dimension	20 m	40 m	15 m	7.5 m
Composition	A, B	A + B	(H)	(h)

Deciding on Where to Install the Air Conditioner (Continued)

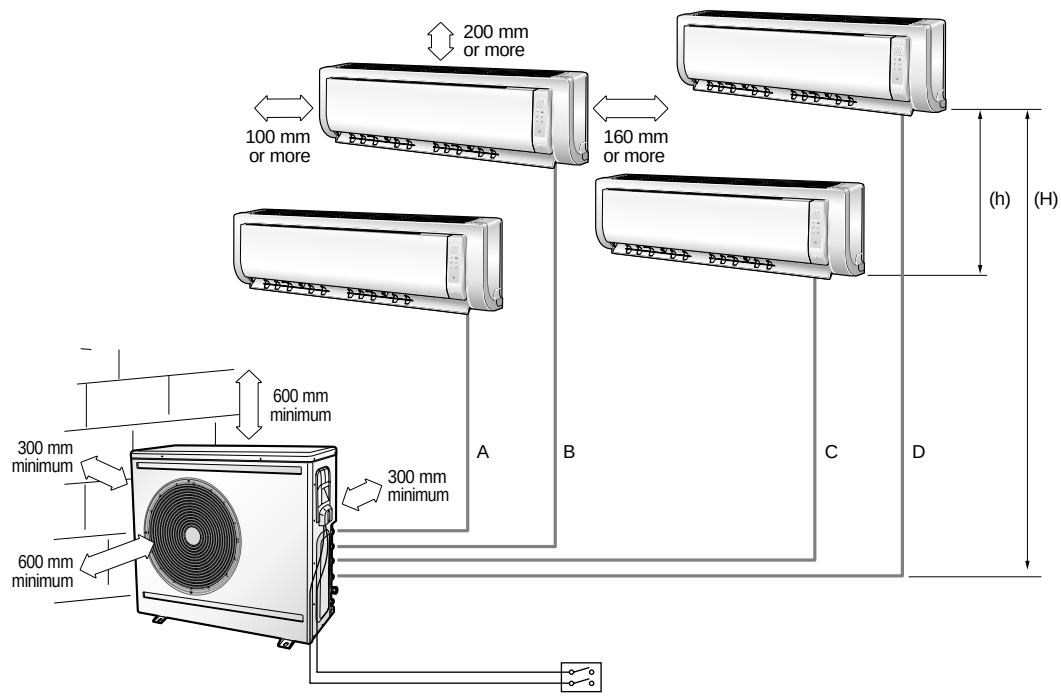
◆ MH068FXEA4 / MH080FXEA4

❊ The split type, 1-way cassette, duct type indoor units can be installed together.

Indoor unit	Outdoor unit	Power supply Ø, V, Hz
✳✳023/026/035/052✳✳	MH068FXEA4 MH080FXEA4	1, 220-240, 50

◗ Piping outside diameter

Unit	Outside diameter	
	Liquid	Gas
✳✳023/026/035✳✳	1/4″	3/8″
✳✳052✳✳	1/4″	1/2″



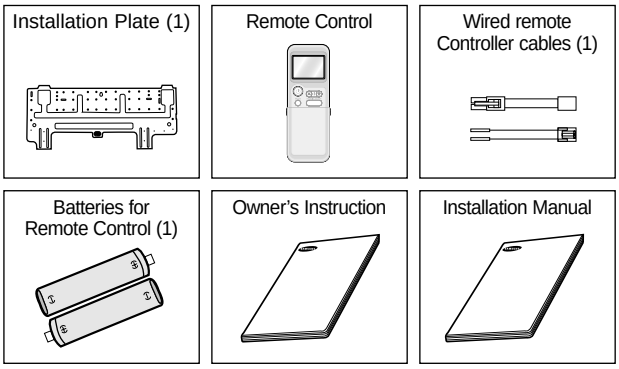
◗ Piping length and the height

	1 Room max length	2 Room total max length	3 Room total max length	4 Room total max length	Max height between indoor unit & outdoor unit	Max height between indoor units
Dimension	25 m	30 m	45 m	70 m	15 m	7.5 m
Composition	A, B, C, D	A + B	A + B + C	A + B + C + D	(H)	(h)

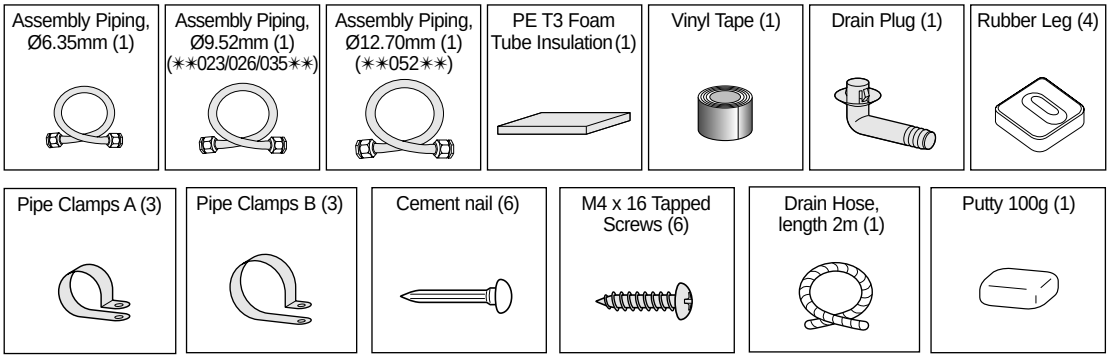
Air Conditioner and Accessories

The following accessories are supplied with the air conditioner.

Accessories in the Indoor Unit Case

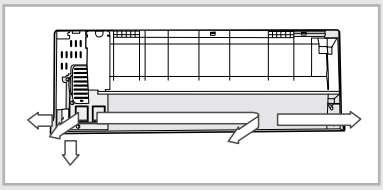


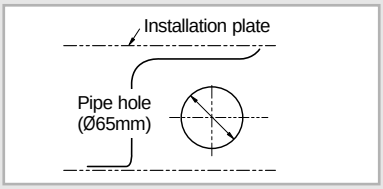
The following connection accessories may be supplied, depending on the option. If they are not supplied, it is recommended that you collect them together before starting to install the air conditioner.


Assembly Piping, Ø6.35mm (1)
Assembly Piping, Ø9.52mm (1) (✶✶023/026/035✶✶)
Assembly Piping, Ø12.70mm (1) (✶✶052✶✶)
PE T3 Foam Tube Insulation (1)
Vinyl Tape (1)
Drain Plug (1)
Rubber Leg (4)
Pipe Clamps A (3)
Pipe Clamps B (3)
Cement nail (6)
M4 x 16 Tapped Screws (6)
Drain Hose, length 2m (1)
Putty 100g (1)

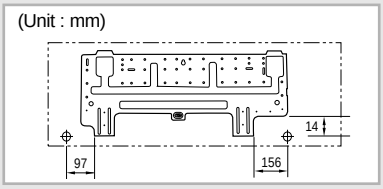
➢ ***If these accessories are supplied, they are located in the accessory box.***

Fixing the Installation Plate

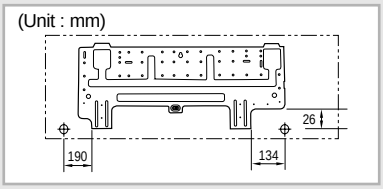




✶✶023/026/035✶✶



✶✶052✶✶



Before fixing the installation plate to the wall or window frame, you must determine the position of the 65-mm hole through which the cable, pipe and hose pass to connect the indoor unit to the outdoor unit.

When facing the wall, the pipe and cable can be connected from the:

- ***Right***
- ***Left***
- ***Underside (right)***
- ***Rear (right or left)***

1 Determine the position of the pipe and drain hose hole as seen in the picture and drill the hole with an inner diameter of 65mm so that it slants slightly downwards.

2

If you fix the indoor unit to a...	**Follow step(s)...**
Wall	**3**.
Window frame	**4** to **6**.

3 Fix the installation plate to the wall giving attention to the weight of the indoor unit.

➢ If you mount the plate on the concrete wall with anchor bolts, the anchor bolts must not be projected by more than 20mm.

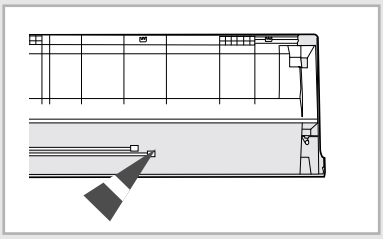
4 Determine the positions of the wooden uprights to be attached to the window frame.

5 Attach the wooden uprights to the window frame giving attention to the weight of the indoor unit.

6 Attach the installation plate to the wooden uprights using tapping screws as seen in the picture.

Purging the Indoor Unit

On delivery, there may be inert gas inside the indoor unit. You should purge the gas from the indoor unit before connecting the assembly pipe.



Unscrew the caps at the end of each pipe.

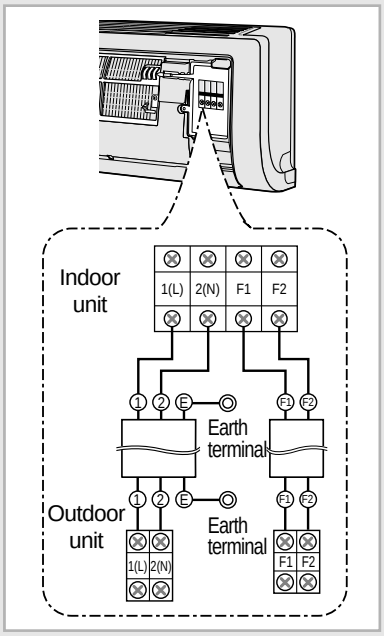
Result: All inert gas exhausts from the indoor unit.

➢ ***To prevent dirt or foreign substance from getting into the pipes during installation, do NOT remove the caps completely until you are ready to connect the pipes.***

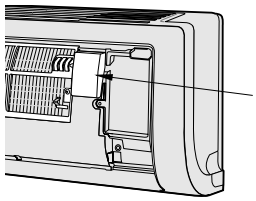
Connecting the Assembly Cable

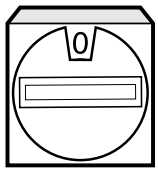
The indoor unit is powered from the outdoor unit via the assembly cable.

1	Extend the assembly cable if necessary.
2	Open the front grille by pulling on the tabs on the lower right and left sides of the indoor unit.
3	Remove the screw securing the connector cover.
4	Pass the assembly cable through the rear of the indoor unit and connect the assembly cable such as figure. ➢ Each wire is labelled with the corresponding terminal number.
5	Pass the other end of the cable through the 65 mm hole in the wall.
6	Replace the connector cover, carefully tightening the screw.
7	Close the front grille.
8	For further details on how to plug the other end of the assembly cable into the outdoor unit, refer to installation manual of the outdoor unit.



Assigning Address to Indoor Unit





Before installing the indoor unit, assign an address to the indoor unit according to the air conditioning system plan.

1 Open the front grille by pulling on the tabs on the lower right and left sides of the indoor unit.

2 Remove the screw securing the cover PCB.

3 Remove the cover PCB.

4 The address of the indoor unit is assigned by adjusting MAIN(SW02).

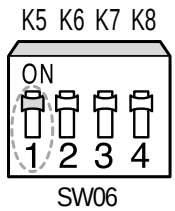
5 The MAIN address is for communication between the indoor unit and the outdoor unit. Therefore, you must set it to operate the air conditioner properly.

6 It is required to set the RMC address if you install the wired remote controller and/or the centralized controller.

7 If you install optional accessories such as the wired remote controller, centralized controller, etc. see an appropriate installation manual.

8 Refer to the outdoor unit installation manual for the details.

Additional Functions



SW06

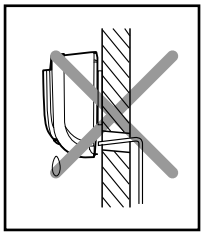
Compensation for lost temperature in heating operation

- Reduces the difference between an actual room temperature and a sensed temperature by the air conditioner when heating.

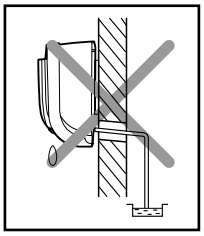
Switch No.	Switch ON	Switch OFF
K5	2°C compensation	5°C compensation

Installing and Connecting the Drain Hose of the Indoor Unit

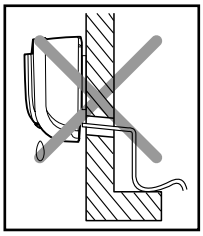
When installing the drain hose for the indoor unit, you should check if condensate draining is adequate. When you pass the drain hose through the 65-mm hole drilled in the wall, check the following.



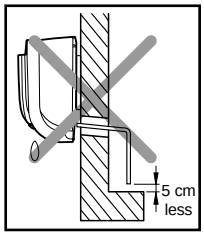
The hose must NOT slant upwards.



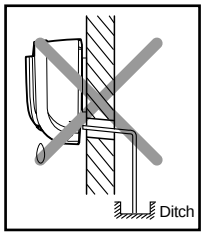
The end of the drain hose must NOT be placed under water.



Do NOT bend the hose in different directions.



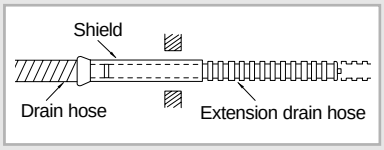
Keep a clearance of at least 5cm between the end of the hose and the ground.



Do NOT place the end of the drain hose in a hollow.

To install the drain hose, do the following.

1	If necessary, connect the 2-meter extension drain hose to the drain hose.
2	If you use the extension drain hose, insulate the inside of the extension drain hose with a shield.
3	Fit the drain hose into 1 of 2 drain hose holes, and then fix the end of the drain hose with a clamp tightly. ➢ If you don't use the other drain hose hole, block it with a rubber stopper.
4	Pass the drain hose under the refrigerant pipe keeping the drain hose tight.
5	Pass the drain hose through the hole in the wall. Check if it slants downwards as seen in the picture.

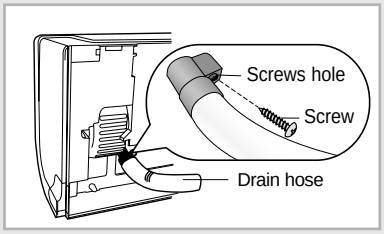


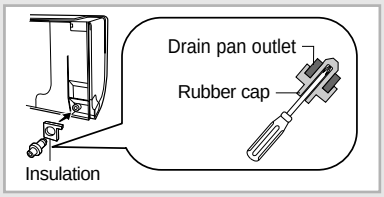
➢ ***The hose will be fixed permanently into position after finishing the installation and the gas leak test; refer to installation manual of the outdoor unit for further details.***

Changing Direction of the Drain Hose

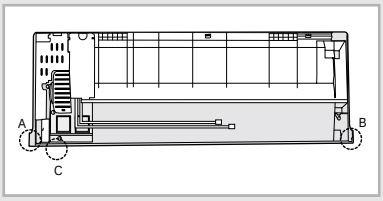
You can select the direction of the drain hose depending on the place you want to install the indoor unit.

1	Detach the rubber cap with the flyer.
2	Detach the insulation(FOAM-PE).
3	Detach the drain hose by pulling it and turning to the left.
4	Insert the drain hose by fixing them into the groove of the drain hose and the outlet of the drain pan.
5	Insert the insulation(FOAM-PE) to prevent water leakage.
6	Stick the rubber cap with the screwdriver by turning it to the right until it fixes to the end of the groove.





Installing and Connecting the Assembly Pipe of the Indoor Unit



There are 2 refrigerant pipes of different diameters:

- ***The smaller one is for the liquid refrigerant***
- ***The larger one is for the gas refrigerant***

A short pipe is already fitted to the air conditioner. You must extend the pipe using the assembly pipe. (Optional)

The connection procedure for the refrigerant pipe varies according to the exit position of the pipe when facing the wall:

- ***Right (A)***
- ***Left (B)***
- ***Underside (C)***
- ***Rear***

1 Cut out the appropriate knock-out piece on the rear of the indoor unit unless you connect the pipe directly from the rear.

2 Smooth the cut edges.

3 Remove the protection caps of the pipes and connect the assembly pipe to each pipe. Tighten the nuts first with your hands, and then with a torque wrench applying the following torque.

Outer Diameter	Torque (kgf•cm)
6.35 mm	140~170
9.52 mm	250~280
12.70 mm	380~420

➢ If you want to shorten or extend pipes, refer to page 13.

4 Cut off the remaining foam insulation.

5 If necessary, bend the pipe round along the bottom of the indoor unit. Then pull it out through the appropriate hole.

- The pipe should not be projected from the rear of the indoor unit.
- The bending radius should be more than 100mm.

6 Pass the pipe through the hole in the wall.

7 For further details on how to connect to the outdoor unit and purge the air, refer to installation manual of the outdoor unit.

➢ ***The pipe will be insulated and fixed permanently into position after finishing the installation and the gas leak test; refer to installation manual of the outdoor unit.***

Cutting or Extending the Pipe

7.5 metres of piping is supplied with the air conditioner(Optional). This length can if necessary be:

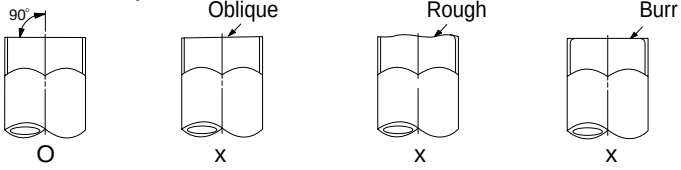
- ***Extended to a maximum length***
- ***Shortened as required***

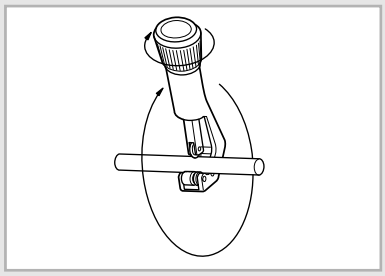
☛ ***If more than 7.5 metres of piping is required:***

- ***The assembly cable must also be extended***
- ***Refrigerant must be added to the circuit by an approved installer; otherwise, the indoor unit may freeze***

1 Make sure that you have the required tools available (pipe cutter, reamer, flaring tool and pipe holder).

2 If you wish to shorten the piping, cut it using a pipe cutter, taking care to ensure that the cut edge remains at a 90° angle with the side of the pipe, and referring to the illustrations below for examples of edges cut correctly and incorrectly.

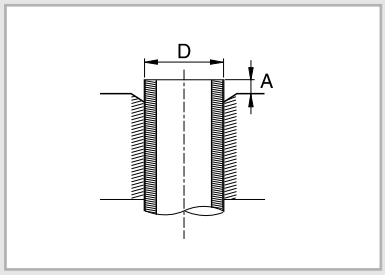




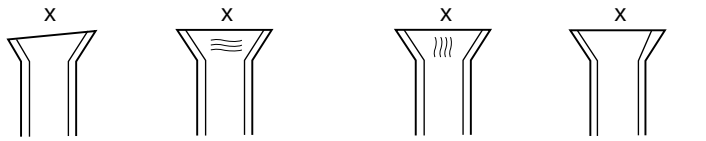
3 To prevent any gas from leaking out, remove all burrs at the cut end of the pipe, using a reamer.

4 Slide a flare nut on to the pipe and modify the flare.

Outer Diameter(D)	Depth(A)
6.35 mm	1.3 mm
9.52 mm	1.8 mm
12.70 mm	2.0 mm

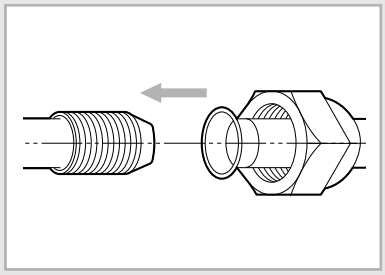


5 Check that the flaring is correct, referring to the illustrations below for examples of incorrect flaring.



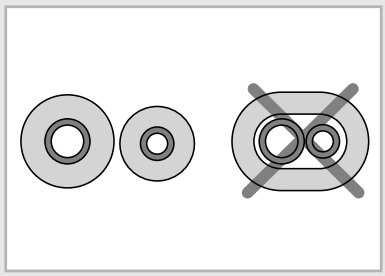
6 Align the pipes to be connected and tighten the flare nuts first manually and then with a torque wrench, applying the following torque.

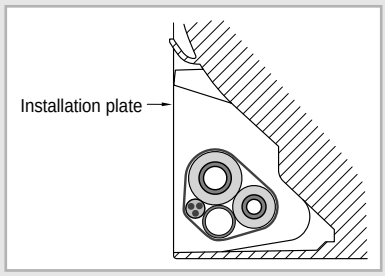
Outer Diameter	Torque(kgf•cm)
6.35 mm	140~170
9.52 mm	250~280
12.70 mm	380~420



7 For further details on how to connect up to the outdoor unit and purge the circuit, refer to installation manual of the outdoor unit.

Fixing the Indoor Unit in Place





After checking for a gas leak in the system, you can insulate the pipe, hose and cables. Then place the indoor unit on the installation plate.

1 To avoid condensation problems, place heat-resistant polyethylene foam separately around each refrigerant pipe in the lower part of the indoor unit.

2 Wrap the refrigerant pipe and the drain hose in the rear of the indoor unit with the absorbent pad.

➢ Wind the pipe and hose three times to the end of the indoor unit with the absorbent pad. (20-mm interval)

3 Wind the pipe, assembly cable and drain hose with insulation tape.

4 Place the bundle (the pipe, assembly cable and drain hose) in the lower part of the indoor unit carefully so as not to be projected from the rear of the indoor unit.

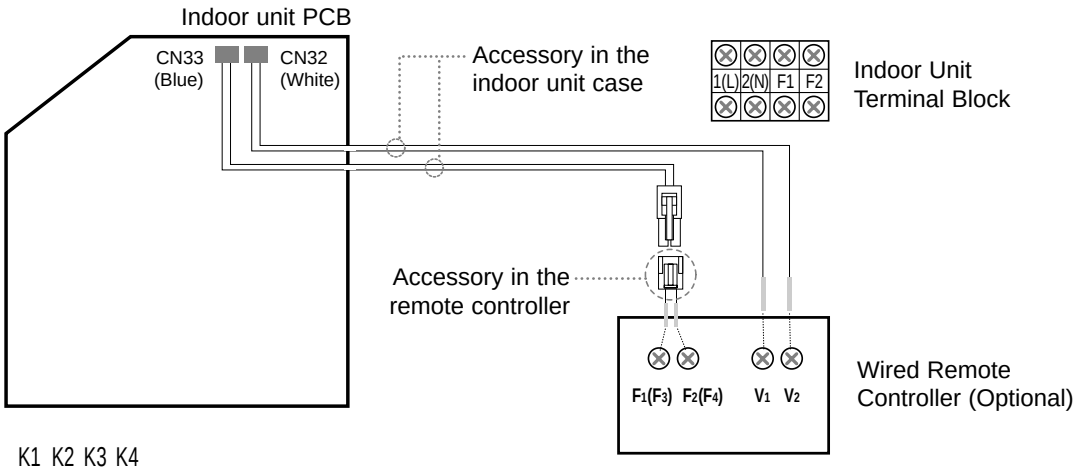
5 Hook the indoor unit on the installation plate and move the unit to the right and left until it secures in place.

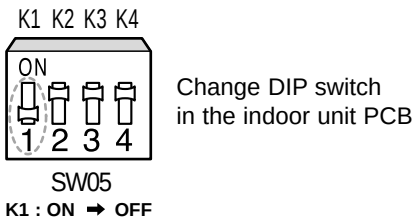
6 Wrap the rest of the pipe with vinyl tape.

7 Attach the pipe to the wall using clamps (Optional).

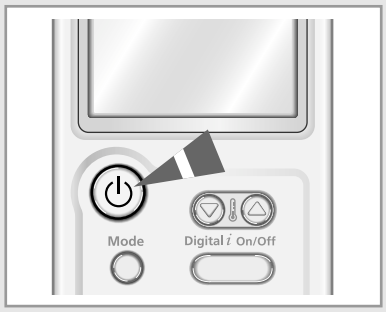
Wiring Wired Remote Controller (Optional)

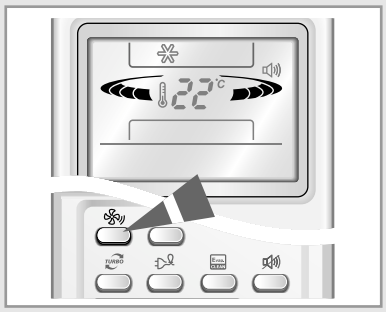
Connect the power cable, which is connected with the outdoor unit and supplied by another source, making sure that the power cable terminal should not be changed.
The F3 and F4 communication cable may be cross-connected, however, it is recommended that they are connected to the corresponding F3 and F4 terminal.





Final Checks and Trial Operation





To complete the installation, perform the following checks and tests to ensure that the air conditioner operates correctly.

1 Check the following.

- Strength of the installation site
- Tightness of pipe connection to detect a gas leak
- Electric wiring connections
- Heat-resistant insulation of the pipe
- Drainage
- Earth conductor connection
- Correct operation (follow the steps below)

2 Press the ⏻ button and check the following.

- The indicator on the indoor unit lights on.
- The airflow blade opens and the fan gears up for operation.

3 Press any button and check the following.

- The appropriate indicator lights on and the air conditioner operates according to the selected mode or function.

4 Press the button and check the following.

- The airflow blades work properly.

Providing Information for User

After finishing the installation of the air conditioner, you should explain the following to the user. Refer to appropriate pages in the User's Manual.

1	How to start and stop the air conditioner
2	How to select the modes and functions
3	How to adjust the temperature and fan speed
4	How to adjust the airflow direction
5	How to set the timers
6	How to clean and replace the filters

➢ ***When you complete the installation successfully, hand over the User's Manual and this Installation Manual to the user for storage in a handy and safe place.***

Troubleshooting

The error indicated on the display panel of indoor unit

Display	Explanation	Remark
E101	Communication errors in the indoor unit	
E102	Communication errors in the outdoor unit	
E121	Indoor unit room temperature sensor error (Open/Short)	
E122	Inlet pipe temperature sensor error in the indoor unit heat exchanger (Open/Short)	
E123	Outlet pipe temperature sensor error in the indoor unit heat exchanger (Open/Short)	
E128	Indoor unit heat exchanger in temperature sensor detached	
E129	Indoor unit heat exchanger out temperature sensor detached	
E130	Indoor unit heat exchanger in & out temperature sensor detached	
E154	Indoor fan motor malfunction	
E161	More than 2 indoor units cool and heat simultaneously	
E162	EEPROM error	
E163	EEPROM option setting error	
E185	Communication cable and power cable misconnected	
E201	The number of indoor unit mismatched	
E251	Compressor discharge sensor error (Open/Short)	
E559	Outdoor unit error	

THIS AIR CONDITIONER IS MANUFACTURED BY:
ESTE AIRE ACONDICIONADO HA SIDO FABRICADO POR:
CE CLIMATISEUR EST FABRIQUE PAR:
QUESTO CONDIZIONATORE D'ARIA È PRODOTTO DA:
ESTE APARELHO DE AR CONDICIONADO É FABRICADO POR:
DIESE KLIMAANLAGE IST FABRIZIERT VON:
ΑΥΤΗ Η ΣΥΣΚΕΥΗ ΚΑΤΑΣΚΕΥΑΣΤΗΚΕ ΑΠΟ :

SAMSUNG

ELECTRONICS